Education and Examination Regulations 2023-2024 (EER)

Maastricht University, Faculty of Science and Engineering

<u>Master programmes Artificial Intelligence, and Data Science for Decision Making</u>

Contents:

Section 1   General provisions

Article 1.1   Applicability of the regulations

These regulations apply to the education and exams and examinations of each of the two master's programmes Artificial Intelligence and Data Science for Decision Making, each referred to as 'the programme' in the remainder of this document. The programmes are offered by the Faculty of Science and Engineering, hereafter called the faculty.

The regulations were adopted by the Faculty Board and the School Board of the School of Information Technology, after advice and consent from the Educational Programme Committee and after the consent from or in consultation with the faculty council. The regulations will take effect on 1 September 2023 for the academic year 2023-2024.

These regulations also apply to students from other programmes, faculties, or institutions of higher education, insofar as they follow components of a programme to which these Education and Examination Regulations apply.

For components of the programme that students follow at another degree programme, faculty or institution of higher education, the Education and Examination Regulations for the other programme, faculty, or institution apply to the component in question.

Article 1.2   Definitions

In these regulations, the following definitions apply:
a. The Act: the Higher Education and Scientific Research Act (*Wet op het hoger onderwijs en wetenschappelijk onderzoek*);
b. Student: a person who is registered at the university for education and/or to take exams and the examination of the programme;
c. Component: a study unit of the programme within the meaning of the Act;
d. Course: a component of at most 6 ECTS, consisting of lectures and tutorials.
e. Course year: year 1 or year 2 of the programme;
f. Academic year: the period from 1 September of a calendar year up to and including 31 August of the following calendar year;
g. Programme: each of the master's programmes referred to in Article 1.1 of these regulations, consisting of a coherent whole of study units;
h. Exam: a component of the examination as referred to in Article 7.10 of the Act;
i. Practical / skill: exercise as referred to in Article 7.13(2)(d) of the Act, in one of the following forms:
    - writing a thesis;
    - carrying out a research project;
    - performing a research assignment;
    - developing a software program;
    - writing a paper, creating a technological design or performing another written assignment;
    - participating in field work or a field trip;
    - completing an internship;
    - participating in project skill classes
    - participating in project meetings
    - tutorial
j. Examination: the final examination for the master's programme;
k. Written exam: assessment performed in a limited amount of time by answering a series of questions either on paper or in a digital format.
l. Credit: a unit expressed in ECTS credits, with one credit equalling 28 hours of study;
m. Board of Examiners: the board referred to in Article 7.12 of the Act;
n. Board of Admission: the board responsible for judging the admissibility of the candidate to the programme;
o. Educational Programme Committee: the representation and advisory body that carries out the duties described in Article 9.18 and 9.38c of the Act.
p. Examiner: the person designated by the Board of Examiners to administer exams and to determine the results of such exams;

q. Faculty Board: the faculty board referred to in Article 9.12 of the Act;
r. Semester: part of an academic year, either starting first of September and running for 20 educational weeks, or starting first of February running for 21 educational weeks.
s. Block: part of a semester during which educational activities take place;
t. AI: Artificial Intelligence;
u. DSDM: Data Science for Decision Making;
v. DSAI: Data Science and Artificial Intelligence;
w. DACS: Department of Advanced Computing Sciences
x. UM: Maastricht University;
y. Study guide: the programme guide, which includes further details about programme-specific provisions and information.
z. Non-EU/EER request: A request from either 1) a person that does not hold the nationality of a European Union country or a country of the European Economic Area or Switzerland, 2) a person that is not a resident of a European Union country, 3) a person that applies to the program based on a diploma that is not issued by an educational institution from a European Union country.

The other terms have the meaning given to them by the Act.

Section 2   Admission Master Programme

Article 2.1   Admission
Candidates who have obtained either:
- the Bachelor of Science degree in Data Science and Artificial Intelligence at the UM, or
- the Bachelor of Science degree in Computer Science at Hasselt University,
- the Bachelor of Science degree in Applied Mathematics and Informatics (formerly known as Scientific Programing) at Aachen University of Applied Sciences and dual training MATSE at RWTH Aachen

are eligible for admission to the programme.

Article 2.2   Eligibility for admission
Those students that did not obtain the degree referred to in Article 2.1, but who satisfy the requirements specified in Article 2.3 and have received a certificate of admission, are eligible for admission to the programme.

Article 2.3   Certificate of admission
The certificate of admission referred to in Article 2.2 will be issued if the candidate concerned satisfies the following admission requirements;

Degree
1. A Bachelor of Science degree in Data Science and Artificial Intelligence or an equivalent diploma in a related field to Data Science and Artificial Intelligence.
2. Students having a professional Bachelor of Science degree in Data Science and Artificial Intelligence or a related field from a Dutch HBO study or equivalent, and successfully completed a tailored bridging programme as referred to in Article 2.7.

Additional requirements
- Candidates must provide a curriculum vitae and write a brief motivation essay of 1 page in A4 format.
- Candidates with a non-EU/EEA diploma should show proof of English proficiency referred to in Article 2.4.
- The Board of Admission can additionally request as proof of analytical writing and quantitative reasoning abilities, a satisfactory Graduate Record Examination (GRE) score. A satisfactory GRE score implies a score of 4 or higher on the analytical writing section and 80% in the quantitative reasoning section. (In case of a lower score, the Board of Admission can still decide that a candidate is admissible).

Article 2.3a

The Board of Admission can approve specific bachelor programmes at universities of applied sciences, for which students that completed specific components, consisting of a bridging minor in collaboration with DACS, are admissible to the Master programme. Conditions are subject to approval by the Board of Admission and the bridging minor subject to approval by the Board of Examiners.

Article 2.4   Language requirement with non-Dutch diplomas

a. Holders of a non-Dutch diploma can only register if they have met the minimum English language requirement corresponding to IELTS (international English Language Testing System) with a score of at least 6.5

b. The requirement referred to under (a) is met if the person concerned has obtained one of the following diplomas or certificates:
   - a completed bachelor's or master's study programme where the language of instruction is English;
   - an International or European Baccalaureate, a US high school diploma or UK GCE A-levels, or
   - can demonstrate sufficient proficiency in English, for example through English taught courses, internships or work experience in an English environment, or
   - can submit one of the following language test certificates.
     - IELTS (6.5 minimum)
     - TOEFL Paper-based test (575 minimum)
     - TOEFL Internet test (90 minimum)
     - TOEFL Computer test (232 minimum)
     - TOEIC (720 minimum) the modules 'listening and reading' and 'speaking and writing' must be completed successfully
     - Cambridge [Advanced (CAE) Grade C, First Certificate in English (FCE) Grade A, First Certificate in English (FCE) Grade B or
     - similar accredited certification

Article 2.5   Board of Admission

1. The Board of Admission for the programmes is responsible for assessing eligibility for admission and issuing the certificate of admission to the programme. The Board of Admission consists of three members appointed from the academic staff responsible for the programme curriculum, under which one chair.
2. A faculty staff member is appointed, for the programme concerned, as an adviser, also the secretary.
3. The Faculty Board appoints the members after consulting with the Director of Studies.

Article 2.6   Admissions test dates

1. The admissions test takes place twice a year.
2. A request for admission to a programme must be submitted to the Board of Admission before 1 May, for a non-EU/EEA request, or before 1 July, for an EU/EEA request.
3. In special cases, the Board of Admission can take up a request submitted after the closing date referred to in paragraph 2.
4. The Board of Admission decides on the request as soon as possible.
5. The candidate will be admitted subject to the condition that, by the relevant start date for the programme, he/she will have satisfied the requirements stated in Article 2.3 and 2.4 regarding knowledge, understanding and skills, as evidenced by the certificates for the programmes taken by the candidate.

Article 2.7   Premaster

1. Students having a professional Bachelor of Science degree in Data Science & Artificial Intelligence or a related field (e.g., Mathematics, Computer Science or Artificial Intelligence) from a Dutch HBO study or equivalent have the possibility to meet the requirements as referred to in Article 2.3 by successfully completing a tailored premaster.
2. Eligibility for a premaster is decided upon by the Board of Admission.

3. The premaster is composed of key components taken from the Bachelor of Science in Data Science and Artificial Intelligence together worth typically 30 ECTS, but not more than 60 ECTS, and decided upon by the Board of Admission and subject to approval by the Board of Examiners.
4. The premaster must be successfully completed within 12 months. After this term has expired or in case of unsatisfactory participation either in a qualitative or quantitative way, he/she may be debarred from further participation.

Section 3   Content and Structure of the Programme

Article 3.1 Programmes

The master's programme is one of the two following programmes:

1. the Artificial Intelligence programme;
2. the Data Science for Decision Making programme;

Article 3.2a Objectives of the programme Artificial Intelligence

The goals of the Master's programme Artificial Intelligence are as follows:

1. A university education within the framework of Project-Centred Learning (PCL) and the UM teaching philosophy.
2. Added depth to the student's knowledge in the chosen academic field.
3. The opportunity to broaden the student's education into other disciplines.
4. Specialised knowledge, skills and understanding in the field of Artificial Intelligence.
5. A preparation for research programmes in the field of Artificial Intelligence.

The programme includes sufficient aspects furthering the student's university education, in particular regarding:

- independent academic thinking and conduct;
- academic communication in the English language; and
- application of the knowledge gained in the discipline in a broader societal context.

Specifically, the Master's programme in Artificial Intelligence provides a thorough knowledge of algorithms, methods, and techniques from the fields of artificial intelligence and data science, such as agent technology, search techniques, machine learning, information retrieval & text mining, and computer games to model, analyse and implement intelligent software in a variety of contexts.

Article 3.2b Objectives of the programme Data Science for Decision Making

The goals of the Master's programme Data Science for Decision Making are as follows:

1. A university education within the framework of Project-Centred Learning (PCL) and the UM teaching philosophy.
2. Added depth to the student's knowledge in the chosen academic field.
3. The opportunity to broaden the student's education into other disciplines.

4. Specialised knowledge, skills and understanding in the field of Data Science, Applied Mathematics, and Operations Research.
5. A preparation for researcher programmes in the fields of Data Science, Applied Mathematics, and Operations Research.

The programme includes sufficient aspects furthering the student's university education, in particular regarding:

- independent academic thinking and conduct;
- academic communication in the English language; and
- application of the knowledge gained in the discipline in a broader societal context.

Specifically, the Master's programme in Data Science for Decision Making provides a thorough knowledge of relevant algorithms, methods, and techniques from the fields of Data Science, Applied Mathematics, Operations Research, Artificial Intelligence and Machine Learning to model, analyse, optimise and implement (intelligent) software in a variety of contexts.

Article 3.2c Qualifications of the programme Artificial Intelligence
The qualifications of the programme Artificial Intelligence are as follows:

I. Knowledge and understanding
The student/graduate demonstrates knowledge and understanding in a field of study that builds upon and supersedes the Bachelor degree. Knowledge, understanding, and abilities are typically at a level at which the student/graduate is able to formulate a feasible research plan in one's own specialisation.

Qualifications:
1. Basic understanding of all key areas of Artificial Intelligence.

2. Advanced understanding of some of the key areas in Artificial Intelligence, in particular in the subfields of machine learning, agent technology, and search techniques.

3. Specialist knowledge of at least one of the key areas in Artificial Intelligence, up to a level that the Master can appreciate the forefront of research in that field.

II. Applying knowledge and understanding
Students/graduates can apply their knowledge and understanding in a manner that shows a scientific approach to their work or vocation. They are able to handle complex and ill-defined problems for which it is not a priori known if there is an appropriate solution, they know how to acquire the necessary information to solve the sub-problems involved, and they know how to proceed with problems for which there is no standard or reliable route to the solution.

Qualifications:
4. The ability to formulate a project plan for an open problem in a field related to Artificial Intelligence in general and to one's own specialisation in particular.

5. The ability to judge the feasibility of a proposal to lead to a solution or design as specified.

6. The ability to contribute autonomously and with minimal supervision to an interdisciplinary project team and to profit from the abilities, the knowledge, and the contributions of other team members.

7. The ability to choose, apply, formulate, and validate models, theories, hypotheses, and ideas from the key areas of Artificial Intelligence.

8. The ability to submit an argument in the exact sciences (or humanities) to critical appraisal and to incorporate its essence in the solution of Artificial Intelligence problems.

9. The ability to translate academic knowledge and expertise into societal, professional, and ethical contexts.

10. Awareness of, and responsibility concerning, the ethical, normative and societal consequences of developments in science and technology, particularly resulting from original contributions.

III. Making judgements
The student/graduate is able to formulate an opinion or course of action on the basis of incomplete, limited and in part unreliable information.

Qualifications:
11. Competence in the search and critical processing of all sources of information in order to solve an open and/or ill-defined problem.

12. The ability to demonstrate a professional attitude conform the (international) scientific conduct in Artificial Intelligence.

13. The ability to provide and receive academic criticism conform the standards in a particular specialism of Artificial Intelligence research.

14. The ability to formulate an opinion and to make judgements that include societal and ethical responsibilities related to the application of one's own contributions.

15. The ability to judge the scientific quality of their work or the work of others.

IV. Communication
The student/graduate can communicate information, ideas, problems and solutions to audiences of specialists in (other) research areas and to a general audience.

Qualifications:
16. The ability to demonstrate academic communication skills; including:

   a. Communicating original ideas effectively in written form.
   b. Making effective oral presentations, both formally and informally, to a wide range of audiences.
   c. Understanding and offering constructive critiques of the presentations of others.

V. Learning skills
The student/graduate has developed those learning skills that are necessary for a successful further career at the highest professional level. The Master is able to detect missing knowledge and abilities and to deal with them appropriately.

Qualifications:
17. Being able to reflect upon one's competences and knowledge and, if necessary, being able to steer their learning process accordingly.

18. The ability to stay up to date with current (scientific and societal) developments related to the professional environment.

19. Showing an active attitude towards continued learning throughout a professional career.

Article 3.2d Qualifications of the programme Data Science for Decision Making
The qualifications of the programme Data Science for Decision Making are as follows:

I. Knowledge and understanding

The student/graduate demonstrates knowledge and understanding in a field of study that builds upon and supersedes the Bachelor degree. Knowledge, understanding, and abilities are typically at a level at which the Master is able to formulate a feasible research plan in one's own specialization.

Qualifications:
1. Advanced understanding of key areas in Applied Mathematics and Data Science, in particular in the subfields Pattern Recognition, Operations Research, Machine Learning, Computational Statistics, and Intelligent Decision Making.

2. Specialist knowledge of at least one of the key areas in Data Science and Decision Making, up to a level that the Master can appreciate the forefront of research in that field.

II. Applying knowledge and understanding
Students/graduates can apply their knowledge and understanding in a manner that shows a scientific approach to their work or vocation. They are able to handle complex and ill-defined problems for which it is not a priori known if there is an appropriate solution, they know how to acquire the necessary information to solve the sub-problems involved, and they know how to proceed with problems for which there is no standard or reliable route to the solution.

Qualifications:
3. The ability to formulate a project plan for an open problem in a field related to Applied Mathematics and Data Science in general, and to one's own specialization in particular.

4. The ability to judge the feasibility of a proposal, taking into account the availability of data, to lead to a solution or design as specified.

5. The ability to contribute autonomously and with minimal supervision to an interdisciplinary project team and to profit from the abilities, the knowledge, and the contributions of other team members.

6. The ability to choose, apply, formulate, and validate models, theories, hypotheses, and ideas from the key areas of Applied Mathematics and Data Science.

7. The ability to transform, analyse and interpret data and to extract information from it, using techniques from Data Science.

8. The ability to submit an argument in the exact sciences (or humanities) to critical appraisal and to incorporate its essence in the solution of problems in Applied Mathematics and Data Science.

9. The ability to translate academic knowledge and expertise into societal, professional, and ethical contexts.

10. Awareness of, and responsibility concerning, the ethical, normative and societal consequences of developments in science and technology, particularly resulting from original contributions.

III. Making judgements
The student/graduate is able to formulate an opinion or course of action on the basis of incomplete, limited and in part unreliable information.

Qualifications:
11. Competence in the search and critical processing of all sources of information in order to solve an open and/or ill-defined problem.

12. The ability to demonstrate a professional attitude conform the (international) scientific conduct in Applied Mathematics and Data Science.

13. The ability to provide and receive academic criticism conform the standards in a particular specialism of Applied Mathematical and/or Data Science research.

14. The ability to formulate an opinion and to make judgements that include societal and ethical responsibilities related to the application of one's own contributions.

15. The ability to judge the scientific quality of their work and the work of others.

IV. Communication

The student/graduate can communicate information, ideas, problems and solutions to audiences of specialists in (other) research areas and to a general audience.

Qualifications:

16. The ability to demonstrate academic communication skills; including:

a. Communicating original ideas effectively in written form.

b. Making effective oral presentations, both formally and informally, to a wide range of audiences.

c. Understanding and offering constructive critiques of the presentations of others.

V. Learning skills

The student/graduate has developed those learning skills that are necessary for a successful further career at the highest professional level. The Master is able to detect missing knowledge and abilities and to deal with them appropriately.

Qualifications:

17. Being able to reflect upon one's competences and knowledge and, if necessary, being able to steer their learning process accordingly.

18. The ability to stay up to date with current (scientific and societal) developments related to the professional environment.

19. Showing an active attitude towards continued learning throughout a professional career.

Article 3.3   Form of the programme

This is a full-time programme. The programme commences twice a year, in September and February of the following calendar year.

Article 3.4   Language of instruction

1. The programme is given in English (accountability for this language of instruction is given in Appendix 5). Components of the programme may be in Dutch or in another common language in the EU.
2. Dutch, English, French and/or German texts may be used in the education and exams in the programme.

Article 3.5   Communications and announcement of decisions

1. The Faculty board, the Board of Examiners, the Programme Director, and the examiners may use the Student Portal/the digital learning environment and email via the UM account for communications relating to the education and examinations.
2. The Faculty Board, the Board of Examiners, the Programme Director, and the examiners may use the Student Portal/the digital learning environment and email through the UM account to announce decisions.

3. The student must regularly check their university e-mail address, the Faculty website, Student Portal and the digital learning environment. Information disseminated via e-mail, the digital learning environment or the website will be assumed to be known.

Article 3.6   Study load
The programme has a study load of 120 credits (ECTS), with one credit equalling 28 hours of study.

Article 3.7   Content of the Programmes
The components of the Artificial Intelligence programme are listed in Appendix 1a. The components of the Data Science for Decision Making programme are listed in Appendix 1b. The student's choice of electives is subject to the Board of Examiners' approval.

Article 3.8   Electives
The first semester of year 2 of the programme contains electives:

1. The student selects one or more components with a total study load equal to 30 ECTS.
2. The components mentioned in Appendix 1 may be chosen as electives.
3. The student may - subject to prior approval by the Board of Examiners of the other programme - choose to take components given by another UM department/faculty, another Dutch university or a foreign university.
4. The Board of Examiners may withhold the approval referred to in paragraph 3 if the elective is not contributing to the qualifications of the programme or has overlap with other components. Further restrictions can be specified in the Rules and Regulations.
5. To attain the certificate for the examination for the master's programme, the student must have obtained at least 78 ECTS of the educational programme through components provided by DACS.
6. For courses passed at a higher education institute prior to the start of the master's programme, an exemption may only be granted on the basis of Article 5.15.

Article 3.9   Flexible curriculum
A student registered for one of the faculty's programmes may, under certain conditions, formulate an educational programme of his/her own which is different from the educational programme stated in Article 3.7. The composition of such a programme must be approved beforehand by the Board of Examiners. The flexible programme must have a study load of 120 credits. The student may deviate from the educational programme stated in Article 3.7 under the conditions formulated in Appendix 3. The composition of such a programme is subject to prior approval by the Board of Examiners.

Article 3.10   Specializations within the programme
1. Specific choices electives constitute a specialization; see Appendix 1a and Appendix 1b for details. A student passing all components of a specialization will get an explicit acknowledgement of completing the specialization upon graduating from the respective Master programme.
2. Students pursuing individual curriculum under the conditions of Article 3.9 are ineligible from getting an explicit acknowledgement of completing a specialization, even if they complete all components of a specialization.

Article 3.11   Study Abroad
1. Students can apply to study abroad for a semester, at another university with whom Maastricht University has an Agreement of Exchange.
2. Nomination and approval is decided on by the Board of Examiners. Guidelines can be found in the Rules and Regulations, withstanding Article 5.3.1.
3. This study abroad will take place in Semester 1 of year 2 and has a study load of 30 ECTS.
4. The selected course programme has to be approved by the Board of Examiners.
5. Further regulations can be found in Appendix 4 and in the Rules and Regulations.

Article 3.12   The examination

The examination for the master's programme Artificial Intelligence consists of the following components:

a. Course year 1, offered from September 2017 or later:
   exams in blocks 1.1, 1.2, 1.4, 1.5, listed in Appendix 1a;
   research project in blocks 1.1-1.3 and research project in blocks 1.4-1.6.
b. Course year 2, offered from September 2018 or later:
   internship (professional or research), or research project, or electives, with a total of 30 ECTS, listed in Appendix 1a;
   master thesis, with a total of 30 ECTS

The examination for the master's programme Data Science for Decision Making consists of the following components:

a1. Course year 1, offered from September 2017 or later:
   exams in blocks 1.1, 1.2, 1.4, 1.5, listed in Appendix 1b;
   research project in blocks 1.1-1.3 and research project in blocks 1.4-1.6.
b. Course year 2, from September 2018 or later:
   Internship (professional or research), or research project, or electives, with a total of 30 ECTS, listed in Appendix 1b;
   master thesis, with a total of 30 ECTS.

Section 4   Education

Article 4.1   Courses; composition; actual design
1. For the programme components, courses are given with the study load stated in Article 3.6.
2. The education is given in the form of classes, project groups, practical training, lectures, individual supervision, or otherwise. On average, the student has 13 hours of face-to-face time per week, but this can differ per period. For further details, please see the study guide and Student Portal/the digital learning environment.
3. The educational programme includes 41 weeks per year. During this period students are expected to be available for educational activities.

Article 4.2 Entrance requirements; Prior knowledge
1. The student may only participate in a semester research project if a student has passed / registered for 2 courses in that semester.
2. The student may only participate in a component if its pre-requisites are fulfilled (see Appendix 1).
3. The prior knowledge to successfully participate in each component is indicated in the study guide. The prior knowledge are prerequisites for students that do not follow the programme, and students that are admitted to components due to special circumstances. I.e., these components can only be taken when the prior knowledge has been fulfilled.

Article 4.3   Component registration
Withstanding Article 4.2 and Article 5.3, a student may participate in a component after he/she has timely registered for it through the Student Portal /the digital learning environment.

Article 4.4   Attendance and best-efforts obligation
1. Project skill trainings and project meetings are mandatory. In addition, each student is expected to participate actively in doing tasks with respect to the research project and to cooperate actively with their group in order to successfully finish the project.
2. The requirements in paragraph 1 are requirements as in article 7.13(2)(t) of the act. This has the consequence that students who have not met the requirements in paragraph 1, cannot participate in the examination of the research project and thus receive an NG. More information can be found in the Rules and Regulations.
3. Students whose absence or inactivity during the project has been marked as inexcusable by the project coordinator and/or students that have a substandard contribution to the group work will not receive a pass for the research project concerned.

4. Attendance and participation in other education activities may be part of an exam when announced in the study guide or Student Portal/the digital learning environment and with prior approval of the Board of Examiners.

Article 4.5   Components with limited capacity
The blocks mentioned in Appendix 2 are available to a limited number of students enrolled at UM, provided that the students enrolled in the programme will anyhow be placed in the blocks belonging to the compulsory part of their programme, in compliance with the periods the faculty designated to them. For blocks belonging to the optional parts of the master's programme, most places will be reserved for students enrolled in the programme.

Article 4.6   Practical training
Some components indicated in Appendix 1 include practical training for which additional regulations apply as specified in the Rules and Regulations.

Section 5   Assessment

Article 5.1   General
1. During a component, the student will be tested for academic training and the extent to which the student has sufficiently achieved the stated learning objectives.
2. The study guide describes the achievements the students must make to pass the component and the criteria on which the student is assessed. Any amendments are published on student portal.
3. The Rules and Regulations describe the assessment procedure.

Article 5.2   Marks
1. Marks are awarded on a scale of 1 to 10. Whole grades are awarded to exams. Both half and whole grades can be awarded for study components of at least 10 ECTS as well as for projects
2. The student must receive a final mark of 6.0 or higher to pass the component.
3. The highest result attained determines the final mark.
4. NG (no grade) can be assigned as a result of plagiarism or academic dishonesty; or when assessment is incomplete and no final grade can be assigned. An NG automatically constitutes a failure and no credit is awarded.

Article 5.3   Order of exams
1. If the student obtained at least 40 ECTS of course year 1, they can sit and register for exams of course year 2.
2. If the student has obtained at least 40 credits in course year 1 and at least 70 credits overall, the student may apply for the master thesis in course year 2. In the case that a student is conducting a 30-credit internship, withstanding Paragraph 3, or if the student has a semester abroad as in Article 3.11, the student may apply for the master thesis in course year 2 if the student has obtained at least 40 credits in course year 1 and at least 60 credits overall.
3. In case the student follows an internship, it should be completed before the start of the thesis.
4. In conformance with article 7.30 paragraph 3 of the Act, the Board of Examiners may grant a student permission to sit other exams than referred to in paragraphs 1 and 2.
5. If a student deviates from the sequence as described in paragraphs 1, 2 and 3, without permission from the Board of Examiners, the result of the component in question can be declared invalid.

Article 5.4   Scheduling and frequency of the exams
1. Written exams are organized twice per academic year on dates to be determined by the Board of Examiners: once during or directly after the block (first sit for the exam) and once later before the end of the academic year in question (resit option).
2. Students can take other exams' forms, including practicals, in principle once a year.
3. Once a student successfully passes an assessment component, the student cannot resit the assessment component. This also holds for passed exams of courses from a different programme that have the same course code.

4. In case a student did not pass a practical, a repair can be offered subject to conditions. General provisions are given in the Rules and Regulations, and component-specific information is communicated on student portal (the digital learning environment).
5. In exceptional cases, the Board of Examiners can decide that an exam may be taken at another time than determined in accordance with the first paragraph.

Article 5.5   Registration for exams
1. A student may take an exam for a component for which the student is registered, after the student has timely registered for the exam through the Student Portal.
2. If a student deviates from the conditions as described in paragraph 1, the result of the component in question will be declared invalid.

Article 5.6   Form of the exams
1. Exams can be 'written exams', 'oral exams' (including 'presentation'), 'research project', 'thesis', "internship", 'participation', 'practicals' (including assignments), 'essay', a combination thereof, or the form as specified on student portal. 'Written exams' also include digital exams.
2. In principle all exams and assignments with the exception of research projects are on an individual basis, unless explicitly announced otherwise.
3. Oral exams can only take place upon prior approval by the Board of Examiners.
4. The form of the exam is announced by the examiner at the start of the block.
5. Upon request, students with a disability may take exams in a manner, which accommodates their specific disability as much as possible. If necessary, the Board of Examiners will obtain expert advice before taking a decision in such matters.

Article 5.7   Oral exams
1. Oral exams are taken only by one person at a time, unless the Board of Examiners decides otherwise.
2. An oral exam is given by the examiner in the presence of second examiner, unless the Board of Examiners has decided otherwise.
3. Oral exams take place in public, unless the Board of Examiners or the relevant examiner decides otherwise in a special case.

Article 5.8   Assessments in exceptional cases
1. A student of the programme can submit a request to the Board of Examiners for an individual assessment. This request may be granted if the participant has not passed the exam in question due to exceptional circumstances and not granting an individual assessment would result in an unacceptable study delay.
2. The following criteria apply to the granting of an individual assessment for the final component of the programme:
   - It must be the final study result to be obtained.
   - The study delay in case the individual assessment is not granted must be at least one semester.
   - The student must have taken part in the last two regular exam opportunities for the exam for which the student is requesting another assessment.
3. Further requirements can be specified in the Rules and Regulations.

Article 5.9   Practicals
1. The Board of Examiners may draw up guidelines for the practicals which include group projects and theses. The guidelines will be included in the Rules and Regulations.
2. The master's thesis project will be evaluated by at least two examiners (the relevant supervisor and a second evaluator), at least two of them are affiliated with the programme for which the student is registered.

Article 5.10   Internships

1. DACS can offer internship vacancies or the student may find a relevant internship and DACS supervisor him/herself. For each internship, an internship proposal must be send to the Board of Examiners for approval.
2. The Board of Examiners appoints an examiner for the internship.
3. The student may undertake an internship supervised by DACS at most once during the programme.
4. The Board of Examiners may formulate guidelines for internships. The guidelines will be included in the Rules and Regulations.

Article 5.11   Determination and announcement of exam result
1. The Board of Examiners determines the standards for assessing each examination component. The standards are included in the Rules and Regulations.
2. The examiner determines the result of a written exam within 15 working days of the date on which it was taken and before the registration of the resit, and provides the Student Affairs Office with the necessary information to inform the student of the result.
3. The examiner determines the result of an oral exam within 24 hours and issues the relevant certificate to the student. If more than one student takes the same exam after each other, this period may be extended by up to five working days.
4. When the result of a written exam is announced, it will be indicated how the student can inspect the exam and file an appeal as referred to in Article 6.5.

Article 5.12   Right of inspection
1. Within 10 working days of the date on which the result of a written exam, including a computer-based exam, is announced, students may inspect their evaluated work.
2. Within the period referred to in paragraph 1, any interested party may, upon request, inspect the questions and assignments for the written exam and, if possible, the standards based on which it was assessed.

Article 5.13   Period of validity
1. In principle, the positive final (overall) results for passed educational units and exemptions registered in the Student Portal are valid for an unlimited period, unless:
    a. This is in contrast to what is stated in Article 3.12
    b. An exam has not been part of the curriculum for more than five years
    c. The student's knowledge, insight or skills that were examined are demonstrably outdated. The Board of Examiners may decide whether examined knowledge, insight or skills are demonstrably outdated, and can limit the validity of results and may require the student to take an additional or alternative exam or examination component.
2. If exceptional circumstances apply as referred to in Article 7.51 paragraph two of the Act, the period of six years in paragraph one will be extended by the duration of the financial support a student receives from the profiling fund.
3. Sub-tests and assignments that were passed within a component, which was not passed, will lose their validity after the academic year in which they were passed unless the Board of Examiners states otherwise.

Article 5.14   Retention period for exams
1. The exercises, answers and the evaluated work of the written tests will be retained in paper or digital form for two years after the exam/examination result is determined.
2. The master thesis and its evaluation will be kept for at least seven years after the evaluation.

Article 5.15   Exemption
1. The Board of Examiners may, at a student's request and having heard the relevant examiner, grant the student an exemption from taking an exam if the student demonstrates that the student previously:
    i. either passed an exam for a university or higher professional education programme which was similar in terms of content and level or

      ii.   gained sufficient knowledge and skills relevant to the exam concerned, either through work or professional experience.

2. An exemption may only pertain to an entire component and not a part thereof.
3. At most 40 credits for the programme may be earned based on the exemptions granted.
4. The master's thesis is excluded from this exemption option.
5. The Board of Examiners will not grant any exemption based on exams passed by a student outside the programme during the period in which the student was barred by the Board of Examiners from taking exams for the programme because of fraud.
6. The same period of validity applies to exemptions as to exam results.

Article 5.16   Fraud
1. 'Fraud', including 'plagiarism', means actions or omissions by a student which make it impossible in whole or in part to properly evaluate the student's knowledge, understanding, and skills. 'Plagiarism' means the presentation of ideas or words from one's own or someone else's sources without proper acknowledgement of the sources.
2. If the Board of Examiners determines that a student has engaged in fraud, the Board of Examiners can take appropriate measures.
3. In serious cases of fraud, the Board of Examiners can propose to UM's Executive Board that the student(s) concerned be permanently deregistered from the programme.
4. The Rules and Regulations include further provisions about what constitutes fraud and which disciplinary measures the Board of Examiners can impose.

Article 5.16A   Invalid exam
If an exam involves irregularities that make it impossible to accurately assess the candidate's knowledge, insight and skills, or when the quality of examination cannot be guaranteed, the Board of Examiners may declare the exam invalid for both the examinee and a group of examinees.

Article 5.17   Unsuitability (Iudicium Abeundi)
1. In exceptional cases and after careful consideration of the interests involved, the Board of Examiners or the Dean/the Faculty Board may ask the Executive Board to terminate or, as the case may be, refuse the enrolment of a student in a programme, if that student, through the student's behaviour or opinions ventured, has demonstrated their unsuitability for the practice of one or more professions for which the student is trained by the programme the student follows, or, as the case may be, for the practical preparation for the practice of the profession.
2. The relevant clauses of Maastricht University's Enrolment Provisions apply.

Section 6   Examination

Article 6.1   Examination
1. The Board of Examiners determines the result and date of the examination and issues the certificate as referred to in Article 6.3 as soon as the student has satisfied the requirements for the examination programme.
2. Prior to determining the result of the examination, the Board of Examiners may conduct their own investigation of the student's knowledge regarding one or more components or aspects of the programme if and insofar as the results of the relevant exams give reason to do this.
3. To pass the examination, the student must pass all components referred to in Article 3.12.
4. To pass the examination and receive the certificate, the student must also have been registered for the programme during the period that the tests were taken.
5. A certificate may only be issued after it has been shown that the student has satisfied all the obligations, including paying the tuition fees.
6. The last day of the month in which the student satisfied all the examination obligations will be considered the examination date (graduation date).
7. Students who have passed the examination and who are entitled to the issuance of a certificate may, stating reasons, ask the Board of Examiners not to do this yet. This request must be submitted at least one month before the final assignment is turned in or the final test is taken.
The Board of Examiners in any event grants the request

-   if the student is selected by the faculty for a double degree, an extracurricular internship or an extracurricular exchange, or
-   if the student holds or has held/will hold a board position for which of at least nine months of financial support is awarded from the profiling fund or holds or will hold a Student Introduction Committee (an 'INKOM') board position.

The Board of Examiners may grant the request if refusal would result in an exceptional case of extreme unfairness because of the fact that the student concerned could not have taken the automatic graduation into account when the student was planning their study.

Article 6.2   Degree

Students who have passed the examination of the program Artificial Intelligence or the program Data Science for Decision Making will be awarded, respectively, the degree 'Master of Science in Artificial Intelligence' or 'Master of Science in Data Science for Decision Making'.

Article 6.3   Certificate and statements

1. As proof that the examination was passed, the Board of Examiners issues a certificate, after it has been stated by or on behalf of UM's Executive Board that the procedural requirements for receiving the certificate have been met. The certificate is based on the model that UM's Executive Board has adopted. One certificate will be issued per programme, even if the student completes several programmes.
2. The certificate that the examination has been passed also indicates:
    a. the name of the institution;
    b. the name of the programme;
    c. the examination components;
    d. (if applicable) the right to practice a specific profession which is related to the certificate;
    e. the degree awarded;
    f. the date on which the programme was most recently accredited or was subjected to the new programme test;.
3. Students who are entitled to the issuance of a certificate may, stating reasons, ask the Board of Examiners not to do this yet (pursuant to Article 6.1(7)).
4. The certificate is signed by the chair of the Board of Examiners and the dean of the faculty.
5. The certificate includes a list of the examination components.
6. The board of examiners includes a diploma supplement as referred to in Article 7.11(4) of the Act with the certificate. This diploma supplement is based on the model adopted by UM's Executive Board, which is in compliance with the agreed European standard format.
7. The Board of Examiners may award the 'cum laude' or 'summa cum laude' designation in accordance with the provisions in the Rules and Regulations.
8. Students who have passed more than one exam and who cannot be issued a certificate will upon request, receive a statement issued by the Board of Examiners which at least indicates the exams which they passed.

Article 6.4   Grade point average (GPA)

The diploma supplement referred to in Article 6.3(7) indicates the final grade point average (GPA) as specified in the Rules and Regulations, to provide a reflection of the student's academic performance.

Article 6.5   Right of appeal

Within six weeks after the decision by the examiner and the Board of Examiners is announced, the student may appeal this decision to UM's Complaint Service Point.

The appeal must be signed, must include a date and the name and address of the party lodging the appeal, must indicate the grounds for the appeal and, if possible, must include a copy of the decision being appealed.

Section 7   Study Guidance

Article 7.1   Study progress administration

The faculty records the students' individual study results and makes them available through the Student Portal or the digital learning environment.

Article 7.2   Study guidance

1. The faculty will provide the introduction and study guidance for students registered for the programme.
2. The study guidance includes
    a. an introduction during the first week of the first semester of the first academic year;
    b. group and individual advice on possible study paths in and outside the programme, partly with a view to the professional options after the master's programme.

Section 8   Transitional and Final Provisions

Article 8.1   Amendments

1. Amendments to these regulations may be adopted in a separate decision by the faculty board in consultation with the Board of Examiners, after a recommendation and consent from the Educational Programme Committee and after consent from or consultation with the Faculty Council.
2. An amendment in these regulations will not pertain to the current academic year, unless the interests of the students will not reasonably be harmed as a result.
3. In addition, amendments may not affect, to the students' detriment, a decision regarding a student which has been taken by the board of examiners pursuant to these regulations.

Article 8.2   Notice

1. The faculty board ensures that proper notice is given of these regulations, the rules and regulations adopted by the Board of Examiners, and any changes to these documents, by, for example, placing such notice on the faculty website/ and/or the Student Portal.
2. Any interested party may obtain a copy of the documents referred to in the first paragraph from the Student Affairs Office.

Article 8.2a   Evaluation

The Faculty Board will ensure that the education of the programme is regularly evaluated, assessing at least – for the purpose of monitoring and if necessary, adapting the student workload – the amount of time students need to complete their duties as set out therein.

Article 8.3   Unforeseen cases/safety net scheme

1. In cases not covered or not clearly covered by these regulations, decisions are taken by or on behalf of the faculty board, after it has consulted with the board of examiners.
2. In individual cases in which application of the Education and Examination Regulations, would lead to manifestly unreasonable results, the board of examiners can deviate from the stated regulations in the student's favour.

Article 8.4   Effective date

These Regulations will come into force on 1 September 2023 and will apply for the academic year 2023/2024.

Adopted by the faculty board on May 23, 2023.

Appendix 1a: Content of the Master programme Artificial Intelligence
(for students starting in September 2023; students that started before, see Appendix 1a')

Year 1	ECTS

Block 1	
Intelligent Search & Games (KEN4123)	**6**
1 elective course from the following courses:	
• Data Mining (KEN4113)	**6**
• Stochastic Decision-Making (KEN4221)	**6**

Block 2	
Advanced Concepts in Machine Learning (KEN4154)	**6**
1 elective course from the following courses:	
• Deep Learning for Image & Video Processing (KEN4244)	6
• Advanced Natural Language Processing (KEN4259)	6

Block 3	
Research Project	**6**

Block 4	
Agents and Multi-Agent Systems (KEN4111)	**6**
1 elective course from the following courses:	
• Building and Mining Knowledge Graphs (KEN4256)	**6**
• Dynamic Game Theory (KEN4251)	**6**
• Explainable AI** (KEN4246)	**6**
• Planning and Scheduling (KEN4253)	**6**

Block 5	
Autonomous Robotic Systems (KEN4114)	**6**
1 elective course from the following courses:	
• Information Retrieval and Text Mining (KEN4153)	**6**
• Computer Vision (KEN4255)	**6**
• Reinforcement Learning (KEN4157)	**6**
• Introduction to Quantum Computing for AI and Data Science*** (KEN4155)	**6**

Block 6	
Research Project	**6**

Year 2	ECTS
Semester 1 Electives	**30 in total**
- Internship - Study Abroad - Elective courses at other UM MSc programmes (at most 13 ECTS) - Elective courses (Fall)*: - Block 1: at most 2 elective courses from the following: - Data Mining (KEN4113) - Signal and Image Processing (KEN4222) - Mathematical Optimization (KEN4211) - Stochastic Decision-Making (KEN4221) - Block 2: at most 2 elective courses from the following: - Model Identification and Data Fitting (KEN4242) - Deep Learning for Image & Video Processing (KEN4244) - Advanced Natural Language Processing (KEN4259) - Block 3: - Research Project - Elective courses (Spring)*: - Block 4: at most 2 elective courses from the following: - Explainable AI** (KEN4246) - Planning and Scheduling (KEN4253) - Building & Mining Knowledge Graphs - Dynamic Game Theory (KEN4251) - Computational Statistics (KEN4258) - Data Fusion (KEN4223) - Block 5: at most 2 elective courses from the following: - Information Retrieval and Text Mining (KEN4153) - Symbolic Computation and Control (KEN4252) - Algorithms for Big Data (KEN4254) - Computer Vision (KEN4255) - Reinforcement Learning (KEN4157) - Introduction to Quantum Computing for AI and Data Science*** (KEN4155) - Block 6: - Research Project	

Passed components can only count for one particular year of the Master programme
*** To register for Explainable AI, the course Advanced Concepts in Machine Learning or Data Mining has to be passed*
**** This course is a prerequisite for the planned elective courses Quantum Algorithms, Quantum AI, and Quantum Information and Security, which will be offered in Semester 1 of the upcoming academic year 2024-2025. These four courses, together with a dedicated research project on quantum computing forms the specialization in Quantum Computing for AI and Data Science.*

Semester 2	
Master Thesis	**30**

Appendix 1a': Content of the Master programme Artificial Intelligence
(for students that started before September 2023; students starting in Sept. 2023, see Appendix 1a)

Year 1	ECTS
Block 1	
Foundations of Agents**** (KEN4115)	**6**
Intelligent Search & Games (KEN4123)	**6**

**** This course is offered the last time. If failed, the student needs to pass Agents and Multi-Agent Systems.

Block 2	
Block 2	
Advanced Concepts in Machine Learning (KEN4154)	**6**
1 elective course from the following courses: • Deep Learning for Image & Video Processing (KEN4244) • Advanced Natural Language Processing (KEN4259)	6 6

Block 3	
Block 3	
Research Project	**6**

Block 4	
Block 4	
Agents and Multi-Agent Systems (KEN4111)	**6**
1 elective course from the following courses: • Building and Mining Knowledge Graphs (KEN4256) • Dynamic Game Theory (KEN4251) • Explainable AI** (KEN4246) • Planning and Scheduling (KEN4253)	**6** **6** **6** **6**

Block 5	
Block 5	
Autonomous Robotic Systems (KEN4114)	**6**
1 elective course from the following courses: • Information Retrieval and Text Mining (KEN4153) • Computer Vision (KEN4255) • Reinforcement Learning (KEN4157) • Introduction to Quantum Computing for AI and Data Science*** (KEN4155)	**6** **6** **6** **6**

Block 6	
Block 6	
Research Project	**6**

Year 2	ECTS
Semester 1 Electives	**30 in total**

- Internship
- Study Abroad
- Elective courses at other UM MSc programmes (at most 13 ECTS)
- Elective courses (Fall)*:
  - Block 1: at most 2 elective courses from the following:
    - Data Mining (KEN4113)
    - Signal and Image Processing (KEN4222)
    - Mathematical Optimization (KEN4211)
    - Stochastic Decision-Making (KEN4221)
  - Block 2: at most 2 elective courses from the following:
    - Model Identification and Data Fitting (KEN4242)
    - Deep Learning for Image & Video Processing (KEN4154)
    - Advanced Natural Language Processing (KEN4259)
  - Block 3:
    - Research Project
- Elective courses (Spring)*:
  - Block 4: at most 2 elective courses from the following:
    - Explainable AI** (KEN4246)
    - Planning and Scheduling (KEN4253)
    - Building & Mining Knowledge Graphs (KEN4256)
    - Dynamic Game Theory (KEN4251)
    - Computational Statistics (KEN4258)
    - Data Fusion (KEN4223)
  - Block 5: at most 2 elective courses from the following:
    - Information Retrieval and Text Mining (KEN4153)
    - Symbolic Computation and Control (KEN4252)
    - Algorithms for Big Data (KEN4254)
    - Computer Vision (KEN4255)
    - Reinforcement Learning (KEN4157)
    - Introduction to Quantum Computing for AI and Data Science*** (KEN4155)
  - Block 6:
    - Research Project

Passed components can only count for one particular year
** To register for Explainable AI, the course Advanced Concepts in Machine Learning or Data Mining has to be passed
*** This course is a prerequisite for the planned elective courses Quantum Algorithms, Quantum AI, and Quantum Information and Security, which will be offered in Semester 1 of the upcoming academic year 2024-2025. These four courses, together with a dedicated research project on quantum computing forms the specialization in Quantum Computing for AI and Data Science.

Semester 2	
Master Thesis	**30**

Appendix 1b: Content of the Master programme Data Science for Decision Making

Year 1	ECTS
Block 1	
Data Mining (KEN4113)	**6**
1 elective course from the following courses:	
• Signal and Image Processing (KEN4222)	**6**
• Mathematical Optimization (KEN4211)	**6**
• Stochastic Decision-Making (KEN4221)	**6**

Block 2	
Model Identification and Data Fitting (KEN4242)	**6**
1 elective course from the following courses:	
• Advanced Concepts in Machine Learning (KEN4154)	**6**
• Deep Learning for Image & Video Processing (KEN4244)	**6**
• Advanced Natural Language Processing (KEN4259)	**6**

Block 3	
Research project	**6**

Block 4	
Computational Statistics (KEN4258)	**6**
1 elective course from the following courses:	
• Building & Mining Knowledge Graphs (KEN4256)	**6**
• Dynamic Game Theory (KEN4251)	**6**
• Data Fusion (KEN4223)	**6**
• Planning and Scheduling (KEN4253)	**6**
• Explainable AI** (KEN4246)	**6**

Block 5	
Algorithms for Big Data (KEN4254)	**6**
1 elective course from the following set:	
• Symbolic Computation and Control (KEN4252)	**6**
• Information Retrieval and Text Mining (KEN4153)	**6**
• Computer Vision (KEN4255)	**6**
• Introduction to Quantum Computing for AI and Data Science*** (KEN4155)	**6**

Block 6	
Research project	**6**

Year 2	ECTS
Semester 1 Electives	**30 in total**
- Internship - Study Abroad - Elective courses at other UM MSc programmes (at most 13 ECTS) - Elective courses (Fall)*: - Block 1: at most 2 elective courses from the following: - Signal and Image Processing (KEN4222) - Mathematical Optimization (KEN4211) - Stochastic Decision-Making (KEN4221) - Intelligent Search and Games (KEN4123) - Block 2: at most 2 elective courses from the following: - Advanced Concepts in Machine Learning (KEN4154) - Deep Learning for Image & Video Processing (KEN4244) - Advanced Natural Language Processing (KEN4259) - Block 3: Research Project - Elective courses (Spring)*: - Block 4: at most 2 elective courses from the following: - Agents and Multi-Agent Systems (KEN4111) - Building & Mining Knowledge Graphs (KEN4256) - Dynamic Game Theory (KEN4251) - Planning and Scheduling (KEN4253) - Data Fusion (KEN4223) - Explainable AI** (KEN4246) - Block 5: at most 2 elective courses from the following: - Symbolic Computation and Control (KEN4252) - Information Retrieval and Text Mining (KEN4153) - Computer Vision (KEN4255) - Autonomous Robotic Systems (KEN4114) - Reinforcement Learning (KEN4157) - Introduction to Quantum Computing for AI and Data Science*** (KEN4155) - Block 6: Research Project	

Passed components only count for one particular year

** To register for Explainable AI, the course Advanced Concepts in Machine Learning or Data Mining has to be passed*

*** This course is a prerequisite for the planned elective courses Quantum Algorithms, Quantum AI, and Quantum Information and Security, which will be offered in Semester 1 of the upcoming academic year 2024-2025. These four courses, together with a dedicated research project on quantum computing forms the specialization in Quantum Computing for AI and Data Science.*

Semester 2	
Master Thesis	**30**

Appendix 2   Blocks with limited capacity (see Article 4.5)

Block	Faculty	Number of participants	Offered in semester
2.1-2.3	FSE/DACS	t.b.a. – Study Abroad	Semester 1 of year 2

Appendix 3 Conditions Flexible Curriculum
The following conditions hold when formulating a curriculum that deviates from Appendix programme deviate. Such a programme has to be approved by the Board of Examiners beforehand.

General Conditions
The following general conditions hold for the programmes:
- Mandatory components are mandatory, and cannot be replaced by any other component.
- First-year elective courses can be only chosen from the subset of first-year electives offered for that particular master.
- When opting for a flexible curriculum, the students must submit a detailed plan (including all first year and second year components), before the start of his/her academic year (September 1, and February) and not during. Plans can only be adjusted for the next academic year (and not more than once in principle).
- No permission will be given for following courses extra-curricular.
- Students cannot do more than 3 courses for which they are registered for the first time in the same period.
- In case due to a curriculum change, a course has moved from year 1 to year 2 for a particular master, students can on request still choose that course in the first academic year after the switch has been made.
- Note that Explainable AI is not allowed unless having passed either Advanced Concepts in Machine Learning or Data Mining.

Master Data Science for Decision Making
When selecting their own subset of first-year electives for Master DSDM the following additional conditions should hold:
- At least one hard OR / Applied Mathematics elective out of the following set: Stochastic Decision Making, Signal & Image Processing, Mathematical Optimization, Symbolic Computation & Control, Planning and Scheduling, or Dynamic Game Theory.
- At least one hard AI/CS course elective out of the following set: Advanced Concepts in Machine Learning, Computer Vision, Advanced Natural Language Processing, Data Fusion, Information Retrieval & Text Mining.

Master Artificial Intelligence
Students can select any subset of first-year electives for Master AI subject to the general conditions.

Appendix 4   Regulations for exchange programmes to study abroad

1. Components attained in connection with an exchange programme adopted by the faculty board may be incorporated into the examination for the programme for which the student is registered.
2. In principle, a student pursuing part of their studies in a foreign country does this as part of the DACS's exchange programme at one of its exchange partners.
3. Studies in connection with the exchange programme constitute part of the studies at UM.
4. The certificate may not be issued until the exchange programme has been completed and the results in the foreign country have been incorporated. The results will be taken into account for classification on the same basis as the results attained in the faculty.
5. In connection with the requirements regarding the level and content of the examination for the programme concerned, several conditions apply to incorporation. The Board of Examiners assesses whether a component may be incorporated into the examination. Incorporation is only possible with the Board of Examiners' permission. The following conditions must be satisfied:

a. the component is academic in nature;
b. in terms of content, the component does not overlap overlaps with other examination components (Article 3.6 of the Education and Examination Regulations for Bachelor's Programmes);
c. the component was attained in connection with an exchange programme, except for the situation described below;
d. the student requested written permission for incorporation beforehand, in principle, by submitting a request with appendices to the Student Affairs Office, which forwarded the information to the Board of Examiners;
e. the student will submit additional information to the Board of Examiners upon request.

All cost involved for studying at a non- exchange partner is on behalf of the student.

6. The following rules apply to incorporation by the Board of Examiners of results attained in foreign countries:
   a) results must be provided to the Board of Examiners through clear, original written notices by the university concerned. In addition to personal information about the student and information about the university, these notices should preferably include the following information: subject code and name; subject level; subject study load; and exam date and result;
   b) incorporation will only be possible if there has been a sufficient assessment. A mere statement that the subject was 'taken' or words to that effect will not be enough.
   c) A result which constitutes a pass in the country concerned will also be considered a pass here, and a fail in a foreign country will also be considered a fail here;
   d) the study load conferred by the foreign university will be followed here without adjustment. If, for example, 5 ECTS are conferred by the university concerned for the subject, the subject will also count for 5 ECTS at the faculty, regardless of how difficult or easy the subject was for the student.
   e) if the study load in the foreign country is not expressed in ECTS units but in other units, the Board of Examiners will convert the study load into ECTS units. The conversion will be based on the study load for a full year of study or a full programme in relation to a study load of 60 ECTS for a year at UM or 180 ECTS for a three-year bachelor's programme.

7. Study delay caused by the study abroad is the responsibility of the student.
8. Insofar as the Education and Examination Regulations and this appendix do not address matters relating to incorporation of components attained elsewhere, the Board of Examiners will decide on the matter.

Appendix 5   Accountability for the language of instruction

The choice for the language of instruction of the programme is in line with the UM Code of Conduct on language in accordance with the Dutch Higher Education and Research Act (WHW) art. 7.2.

Because of the specific educational nature and profile of the programme, teaching and examinations are conducted in English. This guarantees the quality of education, because:

- The content of the programme has an international orientation and focus. Language of main course materials (handbooks, papers, tools) discussing or supporting the latest advances in Artificial Intelligence, Data Science, and Decision Making are in English.
- The academic community is internationally oriented and the staff is international. Project-Centred Learning implements the international classroom concept, which requires a common international language. Students participate in international collaboration by exchange programmes to study

abroad, or conduct their internship and thesis at companies / institutes where English is the main language of communication.

- The labour market demand is internationally oriented (English speaking). Alumni typically end up in jobs at companies / institutes where English is the main language.
- The student intake and current population is internationally diverse and English is the common language (26% Dutch; 74% non-Dutch in 2022-2023).